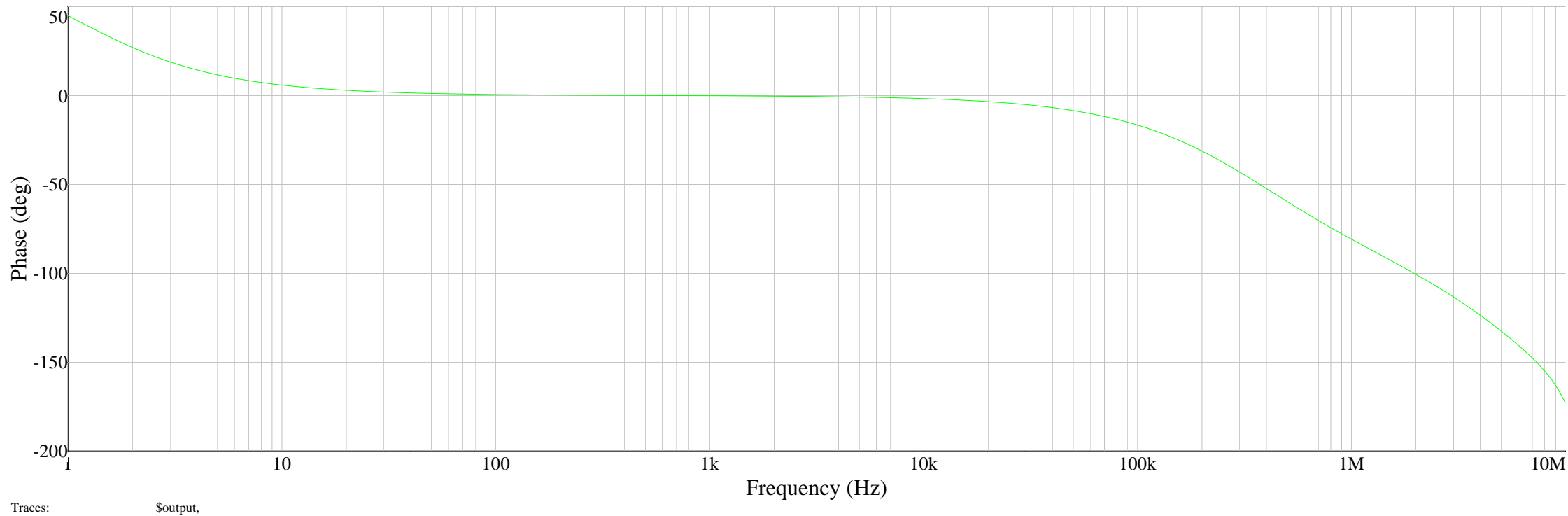
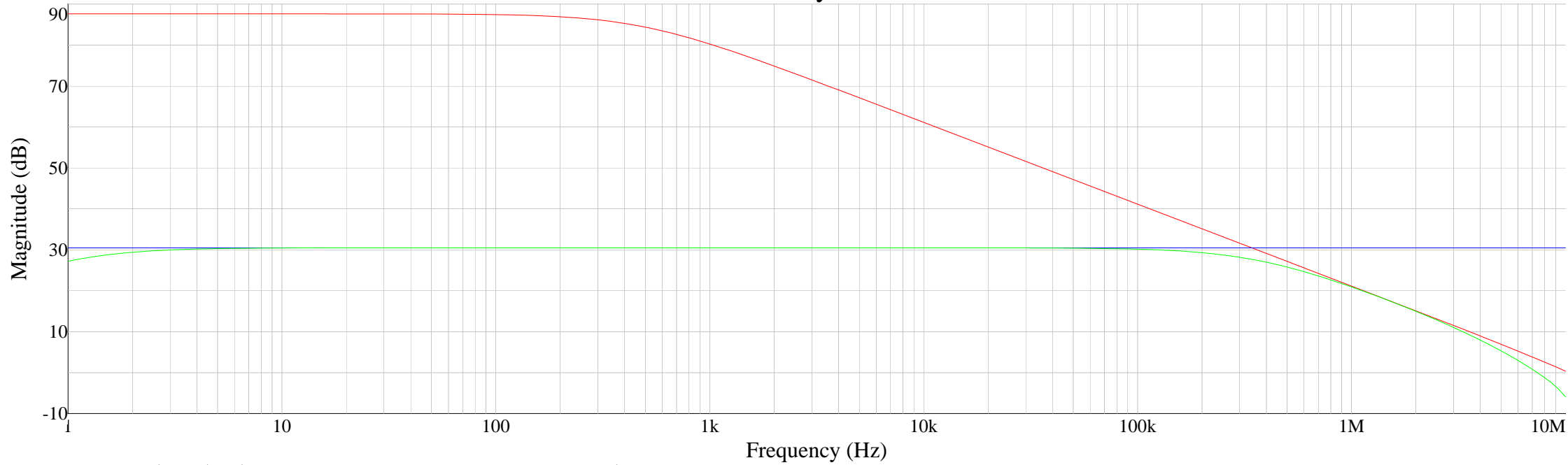
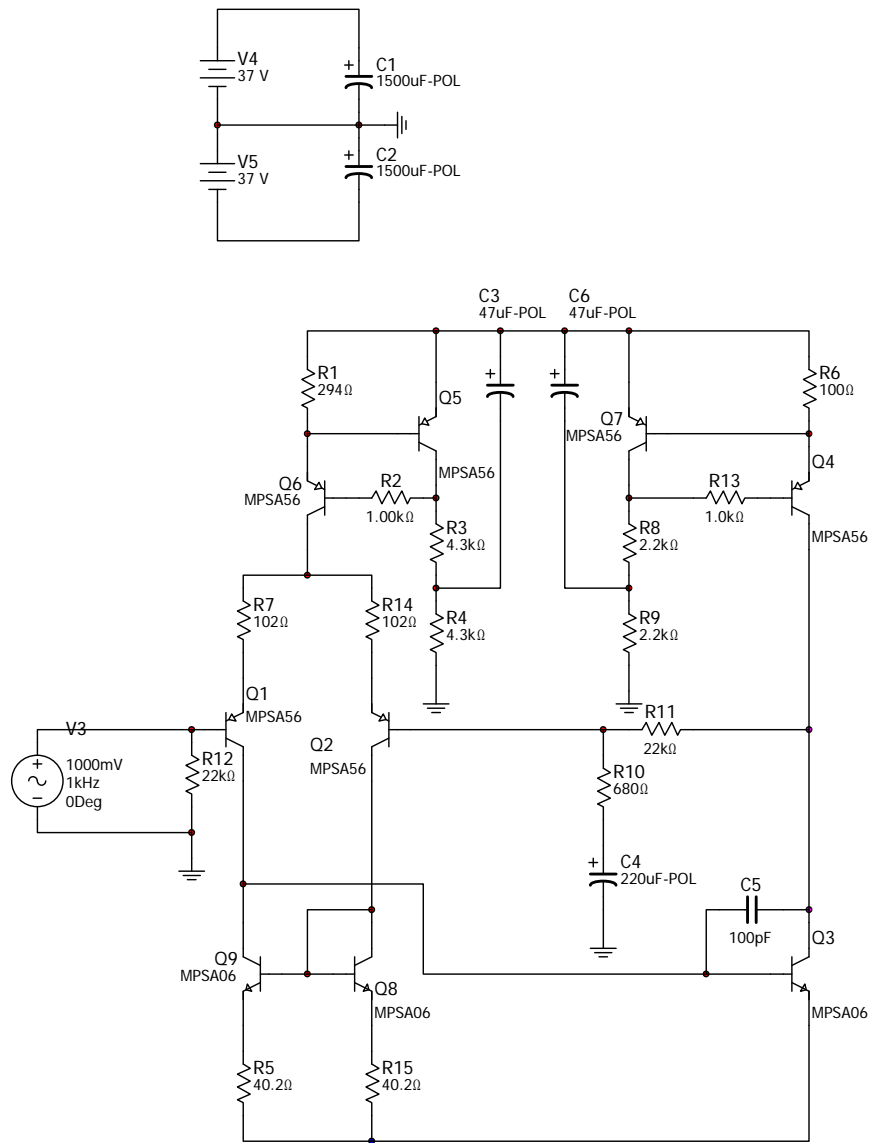


# Test Amplifier

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## AC Analysis





Transistor BE voltage drop (V)	0.572		Frequency (Hz)	Open-Loop Gain (dB)
			0.02	115.9
			0.04	109.9
Speaker Impedance (ohm)	8		0.08	103.8
Output Power per Channel (watts RMS)	50.00		1.6	77.8
Number of Channels	2		3.2	71.8
			6.4	65.8
			12.8	59.8
			25.6	53.7
			20	55.9
<b>Powersupply Requirements</b>				
Current Required (amps RMS)	2.500	2.5		
Voltage Required (volts RMS)	20.000	20		
Actual Output Power (watts RMS)	50.000	50		
Rail Voltage Required (volts DC)	28.280	28		
with PSU Droop (volts DC)	34.280	34		
with Output Device Losses (volts DC)	35.651	36		
with Rectifier Diodes Loss (volts DC)	36.851	37		
Secondary Rail Voltage Required (volts RMS)	26.054	26		
Secondary Rail Current Required per channel (amps RMS)	1.250	1.3		
Secondary Rail Current Required in Total (amps RMS)	2.500	2.5		
Secondary Rail Current Required with Compensation (amps RMS)	3.000	3.0		
VA Rating Required at Specified Load (VA)	156.324	156		
<b>Input Stage Requirements</b>				
Bandwidth (kHz)	22.000			
I <sub>pk</sub> (mA)	0.391			
Differential r <sub>e</sub> Based on I <sub>pk</sub> (ohm)	127.91			
Differential g <sub>m</sub> Based on I <sub>pk</sub> (mA/V)	7.8			
Differential Tail Current (mA)	1.955			
Differential r <sub>e</sub> Based Tail Current (ohm)	25.6			
Differential g <sub>m</sub> Based on Tail Currnet (mA/V)	39.1			
Differential Degeneration Resistors (ohm)	102.3			
Differential g <sub>m</sub> After Degeneration (mA/V)	7.8			
Current Mirror Degeneration (ohm)	40.9			
		R 1		
	293.0			
<b>VAS Requirements</b>				
C <sub>dom</sub> (pF)	100			